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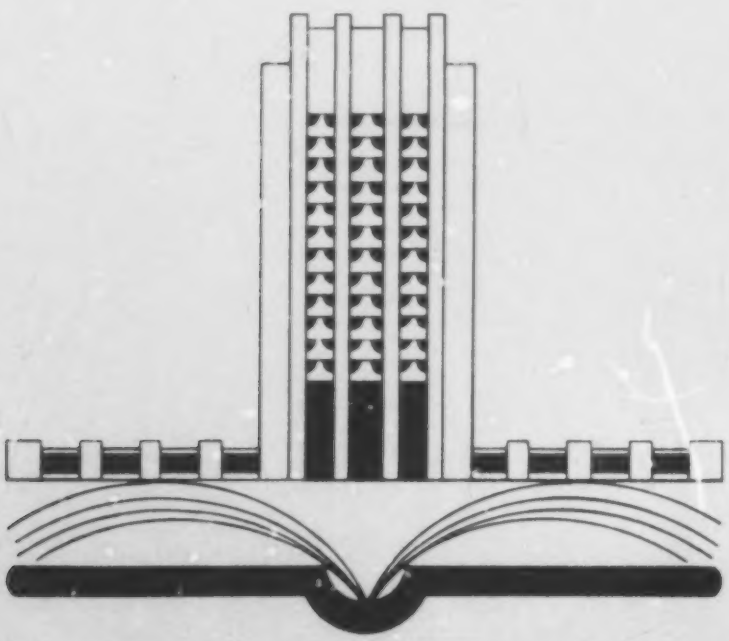

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The declining productivity of agricultural research.
MXMRA. Davis, J.S. ; Peterson, W. St. Paul, Minn. : The Station. Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at a symposium sponsored by NC-148, Minneapolis, MN, May 12-13, 1980.- Includes statistical data. May 12-13, 1980. (8-1981). p. 97-104. Includes 14 references. (NAL Call No.: DNAL S1.M52).
Extract: Based on the results of numerous evaluations, agricultural research has gained the reputation of being a high payoff investment. Marginal internal rates of return in the neighborhood of 35 to 50% have been frequently reported. While the returns to past investment in agricultural research appear to have been high, we should not use these figures to predict the payoff to current and future investment unless we can be reasonably sure that (1) the agricultural research production function is stable, i.e., does not shift in a stochastic fashion from year to year and (2) there is no pronounced trend in productivity of agricultural scientists. The main purpose of this paper is to test these two propositions.

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Environment and resources: Managing the South Pacific's future.
AMBOC. Baines, G. Stockholm : Swedish Academy of Sciences. Ambio. 1984. v. 13 (5/6). p. 355-358. ill. (NAL Call No.: DNAL QH540.A52).

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Epcot.
Henry, Diana Mary. Mineola : World Hunger Year, Inc. Food monitor. Mar/Apr, 1983. v. (32). p. 9-13, 30. ill. (NAL Call No.: TX341.F696).
Abstract: The Land Pavilion at Disney's Epcot Center which considers the future of agriculture, ecology, and nutrition is sponsored by Kraft foods. Dioramas depict various environments such as rain forests, deserts, and prairies. The expansion of food production is explained from the single family farm to large corporate farms. Controlled environment agriculture (CEA) is the major focus of the exhibit. CEA features sophisticated greenhouses that produce year-around. The aim is to increase production particularly in harsh areas worldwide. A number of other features are available in the Pavilion (e.g., an agriculture film, and a puppet show that discusses the 4 food groups). It is concluded that the Land exhibit is more entertainment than substance. (kbc)

0072
Estimating the sensitivity of natural ecosystems and agriculture to climatic change--guest editorial.
CLCHDX. Parry, M.L. Dordrecht : D. Reidel Pub. Co. Climatic change. Mar 1985. v. 7 (1). p. 1-3. Includes references. (NAL Call No.: DNAL QC980.C55).

0073
Evaluation of five emerging biotechnologies for maize.
Menz, K.M. ; Neumeyer, C.F. St. Paul, Minn., The Department. Staff paper P - University of Minnesota, Dept. of Agricultural and Applied Economics. Sept 1981. Sept 1981. (P81-28). 9 p. 1 ref. (NAL Call No.: HD1761.A1M5).
Extract: Scientists were surveyed as part of an assessment of five emerging biotechnologies which are potentially applicable to commercial U.S. maize production by the year 2000. The largest gains expected by scientists were from plant growth regulators, followed by photosynthetic enhancement, cell or tissue culture and biological nitrogen fixation.

0074
Ex ante assessment of consumption and nutrition effects of agricultural research.
MXMRA. Pinstrup-Andersen, P. St. Paul, Minn. : The Station. Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at a symposium sponsored by NC-148, Minneapolis, MN, May 12-13, 1980. May 12-13, 1980. (8-1981). p. 146-152. Includes 11 references. (NAL Call No.: DNAL S1.M52).
Extract: Current and expected future malnutrition has been used extensively in support of investment in research on food production. However, expected nutritional effects do not usually play a significant role in establishing priorities within such research and designing the desired technology.

Expected impact on total food or nutrient supply has been used as a proxy for relative nutritional impact of alternative lines of research. However, the relative change in supply is a poor indicator of relative nutritional impact.

0075
Executive summary: Proceedings of the IFT Workshop on Research Needs.
FOTEA. Chicago, Ill. : Institute of Food Technologists. Food technology. June 1985. v. 39 (6). p. 4R-6R. (NAL Call No.: DNAL 389.8 F7398).
Abstract: A 1984 workshop of the Institute of Food Technologists (IFT) focused on research needs for improving food processing productivity, increasing nutrition knowledge, and enhancing food safety in the 1990s and beyond. Seven research needs identified as most important are highlighted and individually discussed. They include the development technologies for improving food processing systems (via biotechnology, sensors, robotics); agricultural and food products; rapid, automated analytical methods; increasing the understanding of food properties and structures and of mechanisms for controlling biological activity; the development and evaluation of critical health, nutrition, and safety data; and the determination of long-term human resource requirements to satisfy the identified research needs. A tabular summary of 42 specific research areas identified by the various workshop groups also is included. (wz)

0076
Extension service in agriculture: the past, present and future. Radgivning i jordbruket--forr, nu och i framtiden. Swedish.
Gessiein, S. Stockholm : Det Akademi. Tidskrift - Kungl. Skogs- och lantbruksakademiens. 1984. v. 123 (5/6). p. 337-365. Includes references. (NAL Call No.: DNAL 104 SW3).

0077
Faculty movement and composition within a land grant institution (Projections using Markov chain models, Nevada).
Harris, T.R. ; Malloy, J.D. Urbana, Ill. : The Association. NACTA journal - National Association of Colleges and Teachers of Agriculture. June 1984. Includes statistical data. v. 28 (2). p. 46-50. ill. Includes references. (NAL Call No.: 275.9 N213).

0078
Farming for the future /Alberta Agriculture, Agricultural Research Council of Alberta.
Edmonton : The Council,. Description based on: Nov. 1982; title from caption. v. : ill. ; 27 cm. (NAL Call No.: DNAL S542.C2F37).

0079
Farming for the future progress report ..
(Edmonton Agricultural Research Council of Alberta 1980-. Farming for the future progress report. Title from cover. v. : ill. ; 28 cm. (NAL Call No.: S542.C2A46).

0080
Fewer, larger U.S. farms by year 2000--and some consequences (Agricultural projections, land ownership, technology, farming corporations).
McDonald, T.XAAIA. ; Coffman, G. Washington : The Department. Agriculture information bulletin - U.S. Dept. of Agriculture. Oct 1980. Oct 1980. (439). 19 p. ill. Includes references. (NAL Call No.: 1 AG84AB).

0081
Financing agriculture: the impact of recent agriculture policies. What's ahead? (Includes economic outlook, United States, Virginia).
Forbes, S.D. Blacksburg, Va. : The Service. M.B. - Virginia Polytechnic Institute and State University. Cooperative Extension Service. Mar 1983. Paper presented to the 1982 Forum on the Future of Virginia Agriculture, Wakefield, June 1982. Mar 1983. (300). p. 19-23. (NAL Call No.: S544.3.V5M3).

0082
Food, climate, and man / edited by Margaret R. Biswas and Asit K. Biswas.
: Biswas, Margaret R.-Biswas, Asit K. New York Wiley 1979. 285 p. : ill. Includes bibliographies and index. (NAL Call No.: HD9000.5.F66 F&N B-2967).
Abstract: Long-range international, intergovernmental planning is essential if the world is to solve its food crisis. A series of technically oriented articles for the general public address the relationships among food needs, climate, and societal demands. Not until 1971, when a major climate shift caused a 1% drop in cereal production resulting in high food prices in 1973, did the need for more accurate weather forecasting become apparent. Effects of limited water and energy supplies on food production are examined. The environmental impact of food production (e.g., use of pesticides and fertilizers), soil degradation, and methods for soil reclamation are described. (cs)

0083
Food for the future through research.
Washington, D.C. : U.S. Dept. of Agriculture, 1960. 32 p. : chiefly ill. ; 26 cm. (NAL Call No.: DNAL 1 Ag84Ab no.220).

0084
Food, fuel and the future (Effects of increased oil costs, wood grain markets).
Gibbings, C.W. Ottawa, Canada Dept. of Agriculture. Canada agriculture. Fall 1980. v. 25 (4). p. 3-5. (NAL Call No.: 7 R31).

0085
Food production and the future of agriculture.
Vaadia, Y. Philadelphia : International Science Services, c1985. Science in a world of crises : based on the proceedings of an international symposium held in Berlin, May 1982 / by the Weizmann Institute of Science, Rehovot, and the Aspen Institute, Berlin ; editor, p. 77-89. Includes 13 references. (NAL Call No.: DNAL Q175.4.S32).

0086
Food production in the People's Republic of China / by A. Tang (and) B. Stone. -.
Tang, Anthony M. ; Stone, Bruce. Washington IFPRI 1980. 179 p. --. Includes bibliographic footnotes and index. (NAL Call No.: HD2097.T3 F&N E-3427).
Abstract: A population of one billion people has the potential for enormous impact on the world food supply, but demographic and food production data for the People's Republic of China have been difficult to obtain. In an effort to fill this gap, two papers are presented which attempt to synthesize and analyze as much information as is available and make predictions of probable trends in agriculture and related fields in the year 2000 and for the 1985 grain program. Records from 1952-77 are used to estimate cultivated land, animals, energy consumption, farm machinery, fertilizer, and output of grains, soybeans and cotton. The effects of industrialization and resources are considered. Trends are toward population control, although total demand will continue to grow; emphasis on agriculture seems to indicate that production will be capable of keeping up with demand, may result in some dietary improvement, but will not provide for emergency supplies.

0087
The Food Research Institute, Reading looks to the future.
DINID. Gurr, M.I. London : United Trade Press. Dairy industries international, Apr 1985. v. 50 (4), p. 7-8. (NAL Call No.: DNAL 44.8 D1427).

0088
Food research needs: Academic viewpoint.
FOTEA. Liska, Bernard J. Chicago, Ill. : Institute of Food Technologists. Food technology, June 1985. v. (6), p. 12R-13R, 16R. (NAL Call No.: DNAL 389.8 F7398).
Abstract: A survey of 20 food science department heads in US colleges concerning the future directions of food research are summarized and discussed. A six-item questionnaire concerned university-government-industry interaction, the role of academia in meeting food research needs, the academia biotechnology industry relationship, the weakness and strengths of current university research, possible future changes in university-directed food research, and alternative recommendations for academic food research. It was conducded, that greater academic funding and research are needed, and that policy makers may be receptive to a comprehensive program of increased food science research. (wz)

0089
Fractional factorials in product development.
FOTEA. Mullen, K. ; Ennis, D. Chicago, Ill. : Institute of Food Technologists. Food technology, May 1985. v. 39 (5), p. 90-103, charts. Includes 4 references. (NAL Call No.: DNAL 389.8 F7398).
Abstract: A useful, well-studied class of experimental designs known as fractional replications, can be used for the screening of up to 15 variables. The utility of this model lies in its ability to reduce a number of potential variables to the 3, 4, or 5 most important ones. The characteristics of these designs are elaborated, leading up to an analysis of variance and 8 separate experimental plans covering from 8 to 15 variables, respectively. A hypothetical example of application to a case of 32 observations of a product formulation for each of 12 variables is provided. (wz)

0090
Future agrarian sector of Extremadura (Spain, general aspects). El futuro sector agrario extremeno. Spanish.
Bermejo Hernandez, M. Madrid, Editorial Agricola Espanola, Agricultura, July/Aug 1981. v. 50 (589), p. 518-520, ill. (NAL Call No.: 15 AG84).

0091
Future agricultural technology and resource conservation : proceedings of the RCA Symposium, Future Agricultural Technology and Resource Conservation, held Dec. 5-9, 1982, in Washington, D.C. / edited by Burton C. English ... (et al.). -.
English, Burton C. Ames, Iowa Iowa State University Press 1984. Errata slip inserted. xiii, 604 p. : ill. ; 24 cm. Includes bibliographies. (NAL Call No.: S441.R2 1982a).

0092
Future applications of biotechnology.
Kahn, R.P. Washington : U.S. Government Printing Office. Proceedings - Agricultural Outlook Conference, U.S. Department of Agriculture. Presented at the Outlook '85 Conference, December 3-5, 1984, Washington, D.C. 1984. p. 263-268. Includes references. (NAL Call No.: DNAL 1.90 C2OU8).

0093
Future developments in communication (Agricultural information services New Zealand)
Scott, J.D.J. Wellington, Editorial Services. New Zealand agricultural science. Feb 1981. v. 15 (1), p. 10-14. (NAL Call No.: S17.N4).

0094
Future direction of agricultural research.
Young, A. Columbia, Mo. : The Interdisciplinary Plant Biochemistry and Physiology Program. Current topics in plant biochemistry and physiology : Proceedings of the ... Plant Biochemistry and Physiology Symposium held at the University of Missouri, Columbia. 1987, v. 6, p. 156-158. Includes references. (NAL Call No.: DNAL QK861.P55).

0095
The future direction of forestry research evaluation efforts.
XFGTA. Lundgren, A.L. St. Paul, Minn. The Station. USDA Forest Service general technical report NC - United States, North Central Forest Experiment Station. 1985. (104), p. 121-123. Includes 6 references. (NAL Call No.: DNAL aSD11.A352).

0096
Future directions in dipterocarp research (Forests).
Ashton, P.S. Kuala Lumpur, Malaysia, Forest Dept. The Malaysian forester. Apr/July 1981, v. 44 (2/3), p. 193-196. (NAL Call No.: 99.8 M292).

0097
A future for agriculture (Outlooks, impact on education).
McCracken, V.D. ; Newcomb, L.H. Urbana, Ill. : The Association. NACTA journal : National Association of Colleges and Teachers of Agriculture. June 1984, v. 28 (1), p. 13-15. Includes references. (NAL Call No.: 275.9 N21s).

0098
The future for expanded funding of cooperative research (for U.S. farmers, university researchers, extension personnel and administrators).
Jones, T.L. Washington : American Institute of Cooperation. American Cooperation. 1982. 1982, p. 400-402. (NAL Call No.: 280.29 AM3A).

0099
Future forces in agricultural engineering.
Snyder, D.P. St. Joseph, Mich. : The Society. American Society of Agricultural Engineers (Microfiche collection). Paper presented at the 1987 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. Keynote Address. 1987. 12 p. ill. (NAL Call No.: DNAL FICHE S-721).

0100
Future frontiers in agricultural marketing research / edited by Paul L. Farris.
Farris, Paul L. Ames, Iowa : Iowa State University Press, 1983. xvii, 341 p. ; 24 cm. Includes bibliographies and index. (NAL Call No.: HD9000.5 F82 1983).

0101
Future involvement of the department in optimizing potato productivity (On farm research, Optimizing Potato Productivity, International Potato Center).
Horton, D. Lima, Peru : International Potato Center, 1981. Social science research at the International Potato Center / report of the Second Social Science Planning Conference, held at CIP - Lima, Peru, September 7-11, 1981. p. 161-165. Includes references. (NAL Call No.: HB2.A3S6 1981).

0102
The future is abundant : a guide to sustainable agriculture.
Arlington, Wash. Tilth c1982. 192 p. : ill., maps, ports. ; 28 cm. Includes bibliographies and index. (NAL Call No.: S506.N67T87).

0103
The future is built upon the past.
Hurt, V.G. Mississippi State, Miss. The Station. MAFES research highlights - Mississippi Agricultural and Forestry Experiment Station. Mar 1988, v. 51 (3), 16 p. ill. (NAL Call No.: DNAL 100 M69MI).

0104
The future of agriculture based on the trends of three centuries.
Drache, H.M. Clovis, Calif. : Agriservices Foundation. Sheep & goat handbook. 1980, v. 1, p. 23-31. (NAL Call No.: SF371.S43).

0105
The future of agriculture in Manitoba in a changing climate (Effect of carbon dioxide).
Fraser, H.M. Winnipeg : s.n. Annual conference - Manitoba Agronomists. 1983. 1983, p. 125-136. ill., maps. Includes references. (NAL Call No.: 64.9 AG8).

0106
The future of agriculture in the North Central Region (Water needs).
Swanson, E.R. ; Heady, E.O. Ankeny, Iowa : Soil Conservation Society of America. 1983. Water resources research problems and potentials for agriculture and rural communities / T.L. Napier ... (et al.), editors. p. 85-98. Includes references. (NAL Call No.: S494.5.W3W373).

0107
The Future of American agriculture as a strategic resource / edited by Sandra S. Batie and Robert G. Healy.
: Batie, Sandra S.-Healy, Robert G. Washington : Conservation Foundation, 1980. xv, 291 p. : ill., maps ; 23 cm. Includes bibliographies. (NAL Call No.: S439.F8).

0108
The future of American agriculture (USA).
Batie, S.S. SCAMA. ; Healy, R.G. New York : Scientific American, Inc. Scientific American. Feb 1983, v. 248 (2), p. 45-53, ill. (NAL Call No.: 470 SCI2).

0109
The future of arboricultural research.
Johnston, D.R. Oxford, Arboricultural Association. Arboricultural journal. Oct 1980. v. 4 (2). p. 160-167. Includes 3 ref. (NAL Call No.: SD1.A68).

0110
The future of chemicals in agriculture.
Kinney, T.B. Jr. Totowa, N.J. : Rowman & Allanheld, 1985. Agricultural chemicals of the future : invited papers presented at a symposium held May 16-19, 1982, at the Beltsville Agricultural Research Center (BARC), Beltsville, Maryland / James L. Hilton, edit. p. 3-7. (NAL Call No.: DNAL S583.2.A374).

0111
The future of computers in American agriculture.
Kramer, R.C. East Lansing, Mich. : Michigan State University, c1982. Cost benefits of food animal health : proceedings of a planning symposium held at Michigan State University in August 1980 / sponsored by the W.K. Kellogg Foundation of Battle Creek, Michigan. p. 47-56. (NAL Call No.: SF740.C67)

0112
The future of farming and the status of agricultural scientists.
Henzell, E.F. Oxford, Pergamon Press. The Journal of the Australian Institute of Agricultural Science. 1979. v. 45 (4). p. 231-234. 11. 10 ref. (NAL Call No.: 23 AU74).

0113
Future of graduates. Devenir des diplomes. French.
Lille, France. s.n. Cultivar. Jan 1985. (179). p. 81-84. 11. (NAL Call No.: DNAL SB183.C8).

0114
The Future of information resources management in the Department of Agriculture: a strategic framework. --
Washington, D.C. : U.S. Dept. of Agriculture, 1985. Cover title: "April 1985." 2, 15 p. ; 28 cm. (NAL Call No.: DNAL aS494.5.I57F7).

0115
The future of Japan and the world. Rupo asu no sekai to Nihon / Asu no Sekai to Nihon Seikaku Iinkai hen. --.
Tokyo Yomiuri Shinbun Sha (1976). 254 p. : ill. (NAL Call No.: HF1051.R8).

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The future of limestone in agriculture (Soil acidity, effect on crop production, acid rain, research needs).
Bertrand, A.R. Muscle Shoals, Ala. : National Fertilizer Development Center, 1981. National Conference on Agricultural Limestone, Nashville, Tennessee, October 16-18, 1980 / sponsored by the National Crushed Stone Association ... [et al.]. p. 8-11. (NAL Call No.: S643.N348 1980).

0117
Future of networks and computer communications in agriculture (throughout the United States and the world).
Cheek, P. Memphis : National Cotton Council of America. Proceedings of the ... Beltwide Cotton Production-Mechanization Conference. 1983. 1983. p. 67-69. (NAL Call No.: 72.9 C8292).

0118
The Future of regional agricultural information network systems in Japan. Chiiki nogyo joho netto waku shisutemu no choki bijon sono shorai tenbo to gijutsuteki joken /Norin Tokei Kyokai hen. Japanese.
Tokyo : Norin Tokei Kyokai, Showa 58 (1983). 162 p. : ill. ; 21 cm. (NAL Call No.: DNAL S494.5.I47C55).

0119
The future of technology assessments.
XFGTA. Sundquist, E. St. Paul, Minn. : The Station, USDA Forest Service general technical report NC - United States North Central Forest Experiment Station, 1985. (104). p. 124-127. 11. (NAL Call No.: DNAL aSD11.A352).

0120
The future of the computer in the agriculture college classroom.
Wharton, K. Madison, Wis. : North Central Computer Institute, 1982? Computer applications in agricultural engineering : present and future proceedings : Purdue University, August 18-20, 1982 : a workshop / sponsored by NCCI. p. 1-6. (NAL Call No.: DNAL S494.5.I47C64 1982).

0121
Future of the Rhine land agriculture on the doorstep of eighties. Die Zukunft der rheinischen Landwirtschaft an der Schwelle der Achtziger jahre / (Gesamtbearbeitung Franz-Josef Budde --.
Wagner, Horst. Bonn (s.n.) 1979. 192 p. : ill., maps. -- (NAL Call No.: HD1407.L3 Heft 44).

0122
Future oriented agricultural research: foundation and development of the Swiss federal research station for farm management and agricultural engineering. Zukunftsbezogene lanwirtschafliche Forschung: Grundung un Entwicklung der Forschungsanstalt fur Betriebswirtschaft und Landtechnik, Tanikon TG. German.
Ah, J. von. Bern, Eidgenossische Volkswirtschaftsdepartement. Schweizerische landwirtschaftliche Forschung = La Recherche agronomique en Suisse. 1981. v. 20 (2/3). p. 165-174. Includes ref. (NAL Call No.: 1T SCH99).

0123
Future perspectives for agriculture. Zukunftsperspektiven der Landwirtschaft landwirtschaftliche Produktions- und Einkommensentwicklung in den 90er Jahren unter alternativen agrarpolitischen Szenarien : eine regionale und nach

Betriebsgruppen differenzierte Modellanalyse /I. Braune, W. Henrichsmeyer. German.
Braune, I. Munster-Hiltrup : Landwirtschaftsverlag, 1988. xi, 178 p. : ill., maps ; 21 cm. Bibliography: p. 177-178. (NAL Call No.: DNAL 18 G313E Heft 354).

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Future research evaluation needs.
MXMRA. Ruttan, V.W. St. Paul, Minn. : The Station. Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at the "Symposium on Evaluating Agricultural Research and Productivity," January 29-30, 1987, Atlanta, Georgia. 1987. (52). p. 205-207. (NAL Call No.: DNAL S1.M52).

0125
Future role of electronic technology in agricultural research and extension.
YAXAA. Dik, D.W. ; Travieso, C.B. Washington, D.C. : U.S. Department of Agriculture. The Yearbook of agriculture. 1986. p. 272-281. ill. (NAL Call No.: DNAL 1 AG84Y).

0126
Future trends of agricultural chemicals research in industry and the public sector.
Wolf, D.E. Totowa, N.J. : Rowman & Allanheld, 1985. Agricultural chemicals of the future : invited papers presented at a symposium held May 16-19, 1983, at the Beltsville Agricultural Research Center (BARC), Beltsville, Maryland / James L. Hilton, edit. p. 9-14. (NAL Call No.: DNAL S583.2.A374).

0127
Future trends of agricultural information--technical aspects.
Molster, H.C. Manila, The Association. Papers - International Association of Agricultural Librarians and Documentalists World Congress. 1980. 1980. (6th,pt.a). p. P/8.1-P/8.8. (NAL Call No.: Z675.A9I53).

0128
Futures /Michigan State University, Agricultural Experiment Station.
East Lansing, Mich. : The Station; 1982-. Futures. Title from cover. v. : ill. ; 28 cm. (NAL Call No.: DNAL S75.F87).

0129
Futures research in agriculture (Farmland, phospnorus, and the dairy industry as examples, Great Britain in particular).
Bowman, J.C. Surbiton, Surrey, Great Britain, Ministry of Agriculture, Fisheries and Food. The State veterinary journal. Jan 1980. v. 35 (103). p. 14-23. ill. 7 ref. (NAL Call No.: SF601.S8).

0130
General situation and future trends of agricultural documentation and information.
Haendler, H. Manila, The Association. Papers - International Association of Agricultural Librarians and Documentalists World Congress. 1980. 1980. (6th,pt.a). p. P/7.1-P/7.13. (NAL Call No.: Z675.A9I53).

0131
Horticultural research--funding its future.
ARHMA. Bukovac, M.J. East Lansing, Mich. : The Society. Annual report - Michigan State Horticultural Society. 1987. (117th). p. 7-13. ill. Includes references. (NAL Call No.: DNAL 81 M58).

0132
How naturally did Adam live? Thoughts on the history and future of chemistry.
Cramer, F. Philadelphia : International Science Services, c1985. Science in a world of crises : based on the proceedings of an international symposium held in Berlin, May 1982 / by the Weizmann Institute of Science, Rehovot, and the Aspen Institute, Berlin ; editor. p. 93-100. (NAL Call No.: DNAL Q175.4.S32).

0133
The impact of research and education upon the future of Virginia agriculture /George W. Norton and James R. Nichols. --.
Norton, George W. ; Nichols, James R. Blacksburg, Va. : Virginia Polytechnic Institute and State University, College of Agriculture and Life Sciences, 1985. "July 1985.". viii, 36 p. : ill. ; 26 cm. --. Bibliography: p. 22. (NAL Call No.: DNAL S541.5.V8I54 no.85-1).

0134
Improving agricultural research organization and managementimplications for the future : 8 to 12 September 1986, The Hague, The Netherlands.
The Hague, Netherlands : International Service for National Agricultural Research, 1986? . At head of title: ' Report of a workshop. 100 p. : ill. ; 30 cm. Includes bibliographical references. (NAL Call No.: DNAL S539.7.I46).

0135
Indian agriculture in 2000 A.D. /H.K. Jain. --.
Jain, H. K. New Delhi : Indian National Science Academy, 1985. 45 p. : ill. ; 26 cm. --. (NAL Call No.: DNAL S471.I3J27).

0136
Information services in the future. Het voorlichtingsbureau van de toekomst. Dutch.
BDWKA. Hussey, G.A. Den Haag : Ministerie van Landbouw en Visserij. Bedrijfsontwikkeling. Jan 1986. v. 17 (1). p. 24-27. (NAL Call No.: DNAL S11.B43).

0137
Input-output analysis as a tool in agricultural marketing research /by William H. Waldorf.
Waldorf, William H. 1924-. Washington, D.C. : U.S. Dept. of Agriculture, Economic Research Service, Marketing Economics Division, 1962. Caption title. p. 95-111 ; 26 cm. Bibliography: p. 101. (NAL Call No.: DNAL A281.9 Ag83E no.85).

0138
International trade in dairy products: some basic facts. Le commerce international des produits laitiers: quelques donnees de base. French.
Bergeron, J.M. Montreal, La Federee. Le Cooperateur agricole - La Cooperative Federee de Quebec. Aug 1980. v. 9 (8). p. 11-20. 8 ref. (NAL Call No.: 912780(AGC)).
Resume: Apercu des elements principaux du commerce international des produits laitiers et analyse des tendances du marché qui ont amene les cooperatives agro-alimentaires quebecoises a diversifier leurs activities. L'auteur souligne de nombreuses incertitudes relatives aux futures exportations canadiennes. Summary: This is an analysis of trends in the international trade of milk products which have led Quebec agro-food businesses to diversify their products and to ignore exports.

0139
Irrigation and the future of American agriculture (Water, resources, Western States).
Frederick, K.D. Washington, D.C., Conservation Foundation, 1980. The future of American agriculture as a strategic resource, edited by Sandra S. Batie and Robert G. Healy. p. 157-190. Bibliography p. 189-190. (NAL Call No. S439.F8).

0140
Legacy for the future--a dialogue on American agriculture.
Washington, D.C. : The Department. Program aid - United States Department of Agriculture, 1979. (1248). 7 p. (NAL Call No.: DNAL 1 AG84PRO).

0141
Legacy for the future : a dialogue on American agriculture, Marina Inn, South Sioux City, Nebraska ... Before The Honorable Robert Bergland, Secretary, and The Honorable Dale Hathaway, Deputy Secretary. --.
Washington (D.C.) Alderson Reporting Company 1979. At head of title: United States Department of Agriculture. 350 leaves ; 28 cm. (NAL Call No.: HD1773.A3L4).

0142
Lessons on evaluation of rural development research-extension programs based on the Title V experience.
MxMRA, Madden, J.P. St. Paul, Minn. : The Station, Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at a symposium sponsored by NC-148, Minneapolis, MN, May 12-13, 1980. May 12-13, 1980. (8-1981). p. 219-228. Includes 7 references. (NAL Call No.: DNAL S1.M52).
Extract: The organizers of this symposium invited me to address the topic of evaluation as related to rural development and/or small farms. I will discuss evaluation of a small but important aspect of the former and disregard the latter. Specifically, I will not discuss the area of small farms. Rather, I will simple refer to a forthcoming report which evaluates the state of past research on small farms and proposes an agenda for future research. I will however, discuss the evaluation of a specific type of rural development research-extension program conducted by the land-grant university system, namely, Title V of the Rural Development Act of 1972.

0143
Looking ahead: project agriculture's future.
Klaas, L. Tucson, Ariz. : College of Agriculture, University of Arizona. Arizona land & people. Summer 1985. v. 36 (2). p. 21-24. (NAL Call No.: DNAL 6 P9452).

0144
Modeling agricultural productivity impacts of soil erosion and future technology.
Young, D.L. ; Stadmueller, D.-Moldenhauer, W.C. Ames, Iowa : Iowa State University Press, 1984. Future agricultural technology and resource conservation : proceedings, RCA Symposium, Future Agricultural Technology and Resource Conservation, held Dec. 8-9, 1982, washington, D.C. / edited by E.C. English ... (et al.). p. 60-91. Includes 4 p. references. (NAL Call No.: S441.R2 1982A).

0145
Montpellier: 2,000 staff members for agriculture. Montpellier: 2000 cadres pour l'agriculture. French.
Chansizux, M. Lille, France : s.n. , Cultivar. May 1985. (183). p. 29. (NAL Call No.: DNAL SB183.C8).

0146
Moree (agricultural area in Australia)--a district with a bright investment future.
Mengerson, A.G. ; Bladwell, W. Bathurst, N.S.W., Agricultural Technologists of Australia. The Agricultural technologist. May 1980. v. 11 (2). p. 20-21. ill. (NAL Call No.: S17.A35).

0147
New directions for agriculturethe science and technology of the future : hearing before the Joint Economic Committee, Congress of the United States, Ninety-eighth Congress, second session, October 2, 1984. --.
Washington, D.C. : U.S. G.P.O., 1984. Distributed to some depository libraries in microfiche. iii, 147 p. : ill. ; 24 cm. --. Includes bibliographies. (NAL Call No.: DNAL KF25.E2 1984).

0148
The Norfolk Agricultural Station--past and future.
AGPGA. McClean, S.P. London : Agricultural Education Association. Agricultural progress. 1987. v. 62. p. 73-76. (NAL Call No.: DNAL 10 AG86).

0149
A note on forecasting with econometric models.
Allen, P.G. Amherst, Mass. : Northeastern Agricultural and Resource Economics Association. Northeastern journal of agricultural and resource economics. Includes statistical data. Oct 1984. v. 13 (2). p. 264-267. Includes 7 references. (NAL Call No.: DNAL AGE HD1773.A2N6).
Extract: Forecasts made by econometricians are typically conditioned on actual values of explanatory variables, even when at the time of the forecast, such variables might not be available. As a first step, one might test the adequacy of econometric specification by comparing conditional post sample forecasts with those of a univariate ARIMA model. Second, when explanatory variables must themselves be forecast, those for which this can be done only badly, should be omitted from the final model. A better forecast will result. An example of screening out badly forecasted explanatory variables is presented.

0150
Nutrition 2000. Ernahrung 2000 Sechs Milliarden Menschen konnten satt werden /Felix Krusen. German
Krusen, Felix. Munchen : Olzog, 1986. 137 p. : ill. ; 20 cm. Bibliography: p. 136-137. (NAL Call No.: DNAL S439.K7).

0151
Oklahoma agriculture 2000 / Luther Tweeten, editor .
; Tweeten, Luther G. Stillwater : Oklahoma State University, Division of Agriculture, 1982? . 192 p. : ill. ; 28 cm. (NAL Call No.: DNAL S451.05055).

0152
Oklahoma agriculture 2000, statistical supplement.
Stillwater : Division of Agriculture, Oklahoma State University, 1982? . Cover title, iii, 27 p. : ill., maps ; 28 cm. (NAL Call No.: DNAL S451.050552).

0153
One hundred years of agricultural research: a guide to the future.
NYFLAV. Scott, N.R. Ithaca, N.Y. : New York Agric. Exp. Stations and New York State College of Agric. & Life Sciences. New York's food and life sciences quarterly. 1987. v. 17 (2). p. 2-8. ill. (NAL Call No.: DNAL S95.E2).

0154
Optimal expenditures for agricultural research and extension: implications of underfunding.
White, F.C. ; Havlicek, J. Jr. Ames, Iowa, American Agricultural Economics Association. American journal of agricultural economics. Feb 1982. v. 64 (1). p. 47-55. 29 ref. (NAL Call No.: 280.8 J822).
Extract: Significant increases in agricultural productivity will be needed for the United States to meet its future food policy goals related to an abundant and stable food supply. The nation's ability to meet this challenge will depend on the level of investment in agricultural research and extension. Each dollar of underfunding relative to the economically efficient level of research and extension expenditures (a) will cost the government $2.56 ($1.50 discounted) if it later makes up for the low investment level or (b) will cost consumers $4.39 ($3.07 discounted) if the government does not make up for the low level of investment.

0155
Organization of science and the agricultural goals for the year 2000 / George L. Mehren. -.
Mehren, George L. (Washington, D.C.?) U.S. Dept. of Agriculture, Office of the Secretary (1967?). 18 p. ; 26 cm. (NAL Call No.: MLCM 83/1466).

0156
Ornamental horticulture research and the future.
Wood, F.A. Lansing, Mich. : The Conference. Proceedings - International Bedding Plant Conference. 1982. Paper presented at the 15th International Bedding Plant Conference, October 2-7, 1982, Orlando, Florida. 1982. (15th). p. 44-49. Includes references. (NAL Call No.: SB443.N3).

0157
Our changing environment : serving agriculture in the 1990's. -.
(S.l.) Farm Credit Administration (1982?). Cover title. 94 p. : ill. ; 22 x 29 cm. -- (NAL Call No.: HD1761.08).

0158
Past and future of ecosystem research--contribution of dedicated experimental sites.
Franklin, J.F. New York, N.Y. : Springer-Verlag. Ecological studies : analysis and synthesis. In the series analytic: Forest hydrology and ecology at Coweeta / edited by W.T. Swank and D.A. Crossley, Jr. Proceedings of a symposium held in October 1984, Athens, Georgia. 1988. v. 66. p. 415-424. (NAL Call No.: DNAL QH540.E288).

0159
The past is but prologue for the future--or is it? Agricultural Leadership in Science Lecture /presented by Dr. James B. Kendrick, Jr. at the annual meeting of the National Association of State Universities and Land-Grant Colleges, Phoenix, Arizona, November 10, 1986.
Kendrick, James B. Washington, D.C.? : U.S. Dept. of Agriculture, Cooperative State Research Service, 1986. "1986 Agricultural Leadership in Science Lecture"--Cover. 16 p. : ill. ; 22 cm. (NAL Call No.: DNAL aS540.A2K4).

0160
Perspectives for future communications between research and regulatory agencies internationally.
Walton, T.E. New York : A.R. Liss, 1985. Bluetongue and related orbiviruses : proceedings of an international symposium held at the Asilomar Conference Center, Monterey, California, January 16-20, 1984 / editors, T. Lynwood Barber, M.M. Joch. p. 725-727. (NAL Call No.: DNAL SF809.B55B49).

0161
Perspectives on biotechnology development in Minnesota.
JMNAA. Flickinger, M.C. St. Paul : The Academy. Journal of the Minnesota Academy of Science. Paper presented at "Biotechnology and Our Future: a Conference on the Revolution in Biology," April 29-30, 1987. Fall 1987. v. 53 (1). p. 21-25. Includes references. (NAL Call No.: DNAL 500-M663).

0162
Perspectives on the future of American agriculture: hearing before the Joint Economic Committee, Congress of the United States, Ninety-eighth Congress, second session, September 27, 1984. --. Washington, D.C. : U.S. G.P.O., 1985. Distributed to some depository libraries in microfiche. iii, 69 p. ; 24 cm. --. (NAL Call No.: DNAL KF25.E2 1984a).

0163
Planning and forecasting the development of science and technique (Agriculture). RUSSIAN.
Turovskii, B. Moskva, "Kolos". Ekonomika sel'skogo khoziaistva. Dec 1979. Dec 1979. (12). p. 58-64. (NAL Call No.: 281.8 S073).

0164
Plant and animal products in the U.S. food system : proceedings / NRC. --. Washington National Research Council 1978. 254 p. Includes bibliographies. (NAL Call No.: HD9000.1.S92 1977 F&N E-2055).
Abstract: This symposium was held under sponsorship of the Committee on Animal Nutrition, Board on Agriculture and Renewable Resources, of the Commission on Natural Resources, National Research Council, on November 29-30, 1977, in the Auditorium of the National Academy of Sciences, Washington, D.C. Experts from a diversity of related scientific fields were invited to present papers addressing the theme of the symposium. The purpose of this symposium is to explore, in depth, the food-production resources that are available in the United States, to take into account our energy shortfall and increasing demand for food, and to present factual information on the specific roles of plant and animal products in supplying this demand for food. The papers discuss the present and future demand for plant and animal products, consumer acceptance and trends, the nutritional requirements of the human population, and how the associative nature of these products is meeting these demands.

0165
Plant virology in India--past, present and future.
IPHYA. Chenulu, V.V. New Delhi : Indian Phytopathological Society. Indian phytopathology. Mar 1984. v. 37 (1). p. 1-20. Includes references. (NAL Call No.: DNAL 464.8 IN2).

0166
The political future of agriculture in California.
Nielsen, J. Sacramento, Ca., California Weed Conference Office. Proceedings - California Weed Conference. Presented at the 32nd Annual California Weed Conference, January 21-24, 1980, Sacramento, California. p. 3-6. (NAL Call No.: 79.9 C122).

0167
Politics of public support of research and extension.
FFIUA. Anderson, J.H. Oak Brook, Ill. : Farm Foundation. Increasing understanding of public problems and policies. Publication title, "Increasing Understanding of Public Problems and Policies - 1981". 1981? . p. 55-61. (NAL Call No.: DNAL 275.29 F22).
Extract: The purpose of this paper is to discuss the state/federal partnership for research and extension, the payoff from the partnership, the research and extension agenda and the future challenges facing the system. Specific attention is given to the need for unified political action to support the system.

0168
The Porterfields: investing in agriculture's future.
Madden, S. Tucson, Ariz. : College of Agriculture, University of Arizona. Arizona land & people. Summer 1987. v. 38 (2). p. 19. ill. (NAL Call No.: DNAL 6 P9452).

0169
Potential of ruminants for the utilization of fibrous low-quality diets.
PNUSA. Englehardt, W.v. ; Dellow, D.W.-Hoeller, H. Cambridge : Cambridge University Press. The Proceedings of the Nutrition Society. Feb 1985. v. 44 (1). p. 37-43. ill., charts. Includes 34 references. (NAL Call No.: DNAL 389.9 N953).
Abstract: Recent literature reports are examined concerning the potential of utilizing cellulosic, fibrous, low-quality diets for ruminants. Topics include the efficiency of fiber digestion in fore-gut and hind-gut fermenting ruminants; the capacity of the fermentation comprtments in ruminating and non-ruminating herbivores; the selective retention and retention time of food particles in fore-gut fermenters; and potential strategies for the use of certain feedstyles in future animal production. (wz)

0170
Preparing future professionals for agriculture.
ALEDA, Bowen, B.E. Henry, Ill. : Agricultural Education Magazine, Inc. The Agricultural education magazine. July 1987. v. 60 (1). p. 3. (NAL Call No.: DNAL 275.8 AG8).

0171
Present and future research at the northern agricultural energy center (Energy related programs, USA).
Bagby, M.O. St. Louis, Mo. : University of Missouri, 1982. Energy for production agriculture : a national symposium for extension specialists, November 16-18, 1982, St. Louis, Missouri / spon. Cooperative Extension Service, Univ. of Mississippi ... (et al.). p. 71-72. (NAL Call No.: S494.5.E5E57).

0172
The present and future role of teaching and research in the College of Agriculture.
IAXBA, Carlson, J.E. Moscow, Idaho : The Station. Bulletin - Idaho Agricultural Experiment Station. Includes statistical data. Feb 1986. (651). 12 p. (NAL Call No.: DNAL 100 ID14).

0173
Present condition and future development of the system of scientific and technical information in agriculture in the Republic of Cuba. RUSSIAN.
Ponjuan Dante, G. Berlin, Die Akademie. Tagungsbericht - Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik. 1979. 1979. (178). p. 75-80. 10 ref. (NAL Call No.: 18 D4825T).

0174
Primary rural instruction in the future. Het lager agrarisch onderwijs in de toekomst. Dutch.
BDWKA, Klumpers, A.G. Den Haag : Ministerie van Landbouw en Visserij. Bedrijfsontwikkeling. Jan 1985. v. 16 (1). p. 10-12. ill. (NAL Call No.: DNAL S11.B43).

0175
Priority-setting mechanisms for national agricultural research systems present experience and future needs /George W. Norton and Philip G. Pardey.
Norton, George W. ; Pardey, Philip G. The Hague, Netherlands : ISNAR, 1987. "November 1987.". 33 p. ; 30 cm. Bibliography: p. 20-22. (NAL Call No.: DNAL S540.A2N6).

0176
The production of grapes for juice in Pennsylvania: its research-past, present and future.
Haeseler, C.W. Fayetteville, Ark. : Arkansas State Horticultural Society. Proceedings of the ... annual meeting - Arkansas State Horticultural Society. 1983. 1983. (104th). p. 148-153. (NAL Call No.: SB21.A7A7).

0177
The productivity and allocation of research: U.S. agricultural experiment stations, revisited.
Norton, G.W. Urbana, Ill., Illinois University. Dept. of Agricultural Economics. North Central journal of agricultural economics. Jan 1981. v. 3 (1). p. 1-12. 20 ref. (NAL Call No.: HD1773.A3N6).
Extract: Stability over time of the production coefficient on the research variable in an agricultural production function is important if that coefficient is to be used for projecting future rates of return to agricultural research expenditures. Production functions for cash grains, dairy, poultry, and other livestock were estimated using cross-sectional data. In addition, the importance of rainfall and the spillover of research across state boundaries was tested. The difference in the research coefficients for cash grains, dairy, and other livestock were not statistically significant between the 1969 and 1974 census years. Results for poultry were inconclusive.

0178
Prognozy svetoveho zemedelstvi z vyzivy do roku 2000 : studijni zprava = Prognozy mirovogo sel'skogo khoziastva i prodovod'skviia do 2000 g, obzor = Prognoses of world agriculture and food up to 2000, review / Vladimir Jenicek. -. Czech.
Jenicek, Vladimir. Praha Ustav vedeckotechnickych informaci pro zemedelstvi 1982. Summary in English and Russian. 64 p. ; 21 cm. --. Bibliography: p. 62-63. (NAL Call No.: S13.S82 1982 no.1).

0179
Progress through wood research the Forest Products Laboratory past, present, and future /United States Department of Agriculture, Forest Service, Forest Products Laboratory. --.
Madison, Wis. : The Laboratory, 1985. Cover title.- "December 1985"--p. 2 of cover.- This report contains speeches , made at the general assembly and banquet of the Forest Products Laboratory's 75th Anniversary celebration on June 4, 1985. It highlights the significance of the Laborator. 42 p. ; 28 cm. (NAL Call No.: DNAL aSD356.72.U5P7).

0180
Projections of future agricultural productivity under alternative rates of increase in research and Extension investment / Yao-Chi Lu. -.
Lu, Yao-Chi. (Washington, D.C.? Economic Projections and Analytical Systems Program, National Economic Analysis Division, Economic Research Service, U.S. Dept. of Agriculture? 1978?). 26 leaves : ill. ; 28 cm. Bibliography: leaves 25-26. (NAL Call No.: MLCM 83/1143).

0181
Public dialogue of the future of agriculture and rural life : Liberty Park Convention Hall, Sedalia, Missouri ... before the Secretary of Agriculture, Robert Bergland, who presided. -.
; Bergland, Bob Selmer,~ 1928-. Washington, D.C. Alderson Reporting Company 1979. At head of title: United States Department of Agriculture. 313 leaves ; 28 cm. (NAL Call No.: HD1773.A3P8).

0182
Public dialogue on the future of agriculture and rural life : Ridpath Motor Inn, Spokane, Washington ... before the Secretary of Agriculture Bob Bergland, who presided. -.
; Bergland, Bob Selmer,~ 1928-. Washington, D.C. Alderson Reporting Company 1979. At head of title: United States Department of Agriculture. 340 leaves ; 28 cm. (NAL Call No.: HD1773.A9P8).

0183
Public program analysis : a new categorical data approach / Ron N Forthofer, Robert G. Lehnen. -.
Forthofer, Ron N., 1944-. ; Lehnen, Robert G. Belmont, Calif. Lifetime Learning Publications c1981. Includes index. xx, 294 p. ; 24 cm. Bibliography: p. 278-289. (NAL Call No.: HA29.F6 F&N B-3449).
Abstract: A multivariate categorical data analysis technique termed weighted-least-squares (WLS), is applied to program analysis in health and in public affairs for public health program (an other public affairs programs) planners. Program analysis encompasses the planning and prediction, assessment, and evaluation of programs. The WLS approach allows practitioners to analyze a wide range of problems, in contrast to conventional program analysis approaches in which different techniques are needed for each new problem type encountered. The WLS approach also produces estimates that are "best asymptotic normal", yielding an optimal approach to obtaining statistical estimates for large samples. Use of the WLS approach requires, at minimum, a knowledge of the analysis of variance (AOV). An introduction to matrices, and the use of matrices and the linear model in AOV situations is included for the statistically-inexperienced reader. (wz)

0184
RCA Symposium, Future Agricultural Technology and Resource Conservation : executive summary / edited by Burton C. English ... (et al.). -.
; English, Burton C.& R.C.A. Symposium, Future Agricultural Technology and Resource Conservation.~Future Agricultural Technology and Resource Conservation. Ames, Iowa Center for Agricultural and Rural Development 1983. "Based on findings from the RCA Symposium ... held Dec. 5-9, 1982.". vii, 46 p. ; 23 cm. (NAL Call No.: S441.R2 1982).

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Re-tool for the future (Agricultural education, updating curricular, encouragement of student enrollment).
Craig, H.B. Urbana, Ill. : The Association. NACTA journal - National Association of Colleges and Teachers of Agriculture. Sept 1983. Presented at the "29th Annual Conference of the National Association of Colleges and Teachers of Agriculture," June 12-15, 1983, Manhattan, Kansas. v. 27 (3). p. 6-7. (NAL Call No.: 275.9 N213).

0186
Recommendations for future research priorities in oilseed crops.
Gill, K.S. Lundhiana : Punjab Agricultural University, 1980. Breeding oilseed crops / edited by Khem Singh Gill. p. 472-479. (NAL Call No.: DNAL SB298.B73).

0187
Research in the future (Food processing industry).
Holmes, A.W. London, IPC Business Press. Food processing industry. Mar 1981. v. 50 (592). p. 28-29. ill. (NAL Call No.: 389.8 F738).

0188
A research strategy for assessing the effect of erosion on future soil productivity in the United States.
Renard, K.G. ; Follett, R.F. Ankeny, Iowa : Soil Conservation Society of America, c1985. Soil erosion and conservation / edited by S.A. El-Swaify, W.C. Moldenhauer, and Andrew Lo. p. 691-702. Includes 15 references. (NAL Call No.: DNAL S622.2.S65).

0189
Research, the future in agriculture.
West Lafayette, Ind. : Office of Resident Instruction, Purdue University, 1986-. Title from folded cover.~ "A publication of the Purdue University School of Agriculture.". v. : ill. ; 28 x 22 cm. folded to 14 x 22 cm. (NAL Call No.: DNAL S541.5.I6R4).

0190
Results of researches at the Karrykul Central Kara Kum Station and future prospects.
POSPB. Nechaeva, N.T. New York, N.Y. : Allerton Press. Problems of desert development. Translated from: Problemy Osvoeniia Pustyn (2), 1986. p. 3-11. (QK938.D4P73), 1986. (2). p. 2-9. (NAL Call No.: DNAL QK938.D4P73).

0191
Rice research strategies for the future: comments on degree training programs (International Rice Research Institute).
Javier, E.Q. Los Banos, Laguna, Philippines : International Rice Research Institute, 1982. Rice research strategies for the future. p. 479-483. (NAL Call No.: SB191.R5R46).

0192
Rice research needs for the future (Food production).
Cummings, R.W. Los Banos, Laguna, Philippines : International Rice Research Institute, 1982. Rice research strategies for the future. p. 71-78. (NAL Call No.: SB191.R5R46).

0193
Rice research strategies for the future. -.
Los Banos, Laguna, Phillippines International Rice Research Institute 1982. Includes papers presented at a symposium on Rice Research Strategies for the Future, April 21-23, 1980. 552 p. : ill., maps ; 23 cm. Includes bibliographies. (NAL Call No.: SB191.R5R46).

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Rich sources of inspriation.
ALEDA. Gartin, S.A. Henry, Ill. : Agricultural Education Magazine, Inc. The Agricultural education magazine. May 1985. v. 57 (11). p. 4-5. ill. (NAL Call No.: DNAL 275.8 AG8).

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The role of remote sensing technology in future agricultural information systems.
Baumgardner, M.F. Washington, D.C., The Institute. Proceedings and Minutes ... annual meeting of the Agricultural Research Institute. 1979. 1979. (28th). p. 60-86. ill., maps. 6 ref. (NAL Call No.: 4 N2122).

0196
The role of rice in meeting future needs (International Rice Research Institute, development of food crop technology in developing countries).
Hsieh, S.C. ; Flinn, J.C.-Amerasinghe, N. Los Banos, Laguna, Philippines : International Rice Research Institute, 1982. Rice research strategies for the future. p. 27-49. Includes references. (NAL Call No.: SB191.R5R46).

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The rural South--looking to the twenty-first century.
Lyng, R.E. Tuskegee, Ala. : Tuskegee University, c1987. Usnering in the twenty first century : emphasis on the rural South / editor, Thomas T. Williams. Papers preserted at the 44th Professional Agricultural Workers Conference, December 7-9, 1986, at Tuskegee University, Tuskegee, Alabama. p. 3-7. (NAL Call No.: DNAL HD1773.A5U8).

0198
A second-century agenda for state agricultural experiment stations: a view from the twenty-first century.
Wittwer, S.H. Boulder : Westview Press, 1986. The Agricultural scientific enterprise : a system in transition / edited by Lawrence Busch and William B. Lacy. Literature review. p. 315-326. Includes references. (NAL Call No.: DNAL S541.A35).

0199
Sensitivity of agricultural production to climatic change.
CLCHDX. Oram, P.A. Dordrecht : D. Reidel Pub. Co. Climatic change. Mar 1985. v. 7 (1). p. 129-152. maps. Includes references. (NAL Call No.: DNAL QC980.C55).

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Sensitivity of Icelandic agriculture to climatic variations.
CLCHDX. Bergthorsson, P. Dordrecht : D. Reidel Pub. Co. Climatic change. Mar 1985. v. 7 (1). p. 111-127. maps. Includes references. (NAL Call No.: DNAL QC980.C55).

0201
The setting for agricultural production and resource use in the future (USA).
Heady, E.O. Ames, Iowa : Iowa State University Press, 1984. Future agricultural technology and resource conservation : proceedings, RCA Symposium, Future Agricultural Technology and Resource Conservation, held Dec. 5-9, 1982, Washington, D.C. / edited by B.C. English ... (et al.). p. 8-30. Includes 5 p. references. (NAL Call No.: S441.R2 1982A).

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The social impacts of biogenetic technology in agriculture: past and future.
Kloppenburg, J. Jr. Boulder, Colo. : Westview Press, c1984. The Social consequences and challenges of new agricultural technologies / edited by Gigi M. Berardi and Charles C. Geisler. Integrated reference list, p. 337-376. p. 291-321. (NAL Call No.: DNAL S441.S68).

0203
Social objective functions in agricultural research.
MXMRA. Strauss, J. St. Paul, Minn. : The Station. Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at a symposium sponsored by NC-148, Minneapolis, MN, May 12-13, 1980.- Literature review. May 12-13, 1980. (8-1981). p. 153-160. Includes 38 references. (NAL Call No.: DNAL S1.M52). Extract: The preceding is purely descriptive; the concern of this paper is with the normative. A further concern of this paper is the attempt to develop a means, ex ante, to judge the desirability of such changes in the future, and of the policies which give rise to them, rather than with making ex post judgments on the past. Just as the building of the pyramids did little to raise the wellbeing of their builders, so there is a danger that research designed to further increase agricultural output and productivity may be equally guilty of neglect of human values.

0204
Soil productivity and the future of American agriculture.
Swader, F.N. Washington, D.C., Conservation Foundation, 1980. The Future of American agriculture as a strategic resource, edited by Sandra S. Batie and Robert G. Healy. p. 79-115. ill., map. Bibliography p. 113-115. (NAL Call No.: S439.F8).

0205
The South Carolina food system does it have a future? : a study of the South Carolina food system /by John Madera and the Cornucopia Project of the Regenerative Agriculture Association.
--.
Madera, John. Emmaus, Pa. : The Project, c1985. "This study was funded in part by the Jessie Smith Noyes Foundation.". 66 p. ; 28 cm. Includes bibliographies. (NAL Call No.: DNAL S494.5.P75M3).

0206
Spartan science - agricultural research shapes Michigan's future.
Document available from: Michigan State University, Bulletin Office, P.O.Box 231, East Lansing, Michigan 48824 1983. 3 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: 0-14196).
Describes the role and mission of the Agricultural Experiment Station in Michigan. Includes recent accomplishments, plans for the future, and the 1981-82 financial report.

0207
Statement by Assistant Secretary of Agriculture William G. Lesher before the Senate Agriculture Committee's Subcommittee on Agricultural Research and General Legislation, September 14, 1982 (Forecasting and reporting farm income, delayed reporting schedules, U.S. Department of Agriculture).
Lesher, W.G. Washington, The Office. Major news releases and speeches - United States Department of Agriculture, Office of Governmental and Public Affairs. Sept 3/17, 1982. Sept 3/17, 1982. p. 6-11. (NAL Call No.: aS21.A8U51).

0208
The status and future of biotechnology in developing countries.
Yuthavong, Y. Gainesville : Publ. for the Univ. of Florida Press by University Presses of Florida, c1987. Biotechnology : perspectives, policies and issues : an international symposium, held at the University of Florida, Gainesville, Florida, June 1-4, 1986 / edited by Indra K. Vasil. p. 127-143. Includes references. (NAL Call No.: DNAL TP248.14.B5).

0209
Sustainable agricultural futures: preliminary goals and criteria to assess growth.
Boody, G.M. Gainesville, Fla. : The Program, 19837 . Agriculture, change and human values : proceedings, multidisciplinary conference Oct 18-21, 1982 / edited by R. Haynes, R. Lanier ; sponsored by University of Florida, Humanities and Agriculture Pro. v. 2 p. 597-612. Includes references. (NAL Call No.: DNAL S401.A45).

0210
Symposium held on future Agricultural Technology and Resource Conservation (Interdisciplinary discussions, policies, trends, United States).
Ladd, J.E. Washington : The Service. Soil & water conservation news - United States Dept. of Agriculture, Soil Conservation Service. Mar 1983. v. 3 (12). p. 3-4. (NAL Call No.: aS622.S6).

0211
Technology assessment and the national model.
MXMRA, Alt, K. ; Heady, E.-English, B. St. Paul, Minn. : The Station. Miscellaneous publication - University of Minnesota, Agricultural Experiment Station. Paper presented at a symposium sponsored by NC-148, Minneapolis, MN, May 12-13, 1980. May 12-13, 1980. (8-1981). p. 229-231. (NAL Call No.: DNAL S1.M52).
Extract: We present possibilities for generating economic intelligence by use of a national model to aid in the assessment of technological changes and research returns. At the outset, we want to differentiate two types of technology assessment: ex post and ex ante. The ex post assessment measures what has happened in the past; a national programming model is not an efficient tool to measure this type of change. The ex'ante assessment suggests which types of technological change could occur in the future and/or which types of change should occur to satisfy future demands. It is the latter assessment for which a national programming model is uniquely qualified. We will restrict this paper only to the ex ante assessment.

0212
Technology, public policy, and the changing structure of American agriculture.
PNRCA, Phillips, M.J. Bethesda, Md. : The Institute. Proceedings and minutes ... annual meeting of the Agricultural Research Institute. Paper presented at the "Meeting on Enhancing Competitiveness through Agricultural Research," October 8-10, 1986, Washington, D.C. 1986. (35th). p. 34-44. (NAL Call No.: DNAL 4 N2122).

0213
A time for evaluation.
ALEDA, Gartin, S.J. Henry, Ill. Agricultural Education Magazine, Inc. The Agricultural education magazine. May 1985. v. 57 (11). p. 10-11. ill. (NAL Call No.: DNAL 275.6 AG8).

0214
Toward a new covenant for agricultural academe.
Madder, J.P. Boulder : Westview Press, 1986. The Agricultural scientific enterprise : a system in transition / edited by Lawrence Busch and William B.

Lacy. p. 267-279. Includes references. (NAL Call No.: DNAL S541.A35).

0215
Toward an optimal rate of growth in agricultural production research and extension.
Knutson, M. ; Tweeten, L.G. Lexington, Ky., American Agricultural Economics Association. American journal of agricultural economics. Feb 1979. v. 61 (1). p. 70-76. 14 ref. (NAL Call No.: 280.8 J822).
Extract: The purpose of this study is to determine a more nearly optimal rate of future investment in publicly supported agricultural production research and extension (R). Specific objectives include: (a) Updating previous estimates of rates of return on past investments in R; (b) Estimating expected rates of return on alternative future levels of investment in R, showing investments required to reduce the rate of return to a more nearly optimal level; (c) Examining the impact on future farm prices, income, and usage of conventional production inputs associated with alternative rates of growth in farm productivity; and (d) Inferring tentative conclusions regarding optimal growth in R consistent with equilibrium rates of return in (b) and the ability of the farming industry to adjust to productivity gains as determined in (c).

0216
Training future managers of agriculture.
Tait, J.C. Ottawa : Canadian Agricultural Economics Society. Canadian journal of agricultural economics = Revue Canadienne d'economie rural. 1983. Paper presented at the 1st annual meeting of the Canadian Agricultural Economics and Farm Management Society, "Food at What Cost", June 10-13, 1983, Truro, Nova Scotia. v. 31. p. 186-189. (NAL Call No.: 281.8 C16).

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Training our future farmers (Australia).
Watkinson, M. Sydney, New South Wales. Dept. of Agriculture. Agricultural gazette of New South Wales. Aug 1980. v. 91 (4). p. 11-13. ill. (NAL Call No.: 23 N472).

0218
Trends and projections in animal science administration.
JANSAG. Omtvedt, I.T. ; Johnson, G.R. Champaign, Ill. : American Society of Animal Science. Journal of animal science. July 1983. v. 57 (suppl.2). p. 147-155. Includes references. (NAL Call No.: DNAL 49 J82).

0219
USDA sows seeds for its future.
Klausner, A. New York, N.Y. : Nature Pub. Co. Bio/technology. Jan 1986. v. 4 (1). p. 27, 30-31. ill. (NAL Call No.: DNAL QH442.B5).

0220
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